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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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RYOJI YAMAGUCHI

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EXAMINER

FLETCHER, JAMES A

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/380,187

Applicant(s)

YAMAGUCHI ET AL.

Examiner

James A. Fletcher

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10 September 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Please include the new Art Unit 2616 in the caption or heading of any written or facsimile communication submitted after this Office Action because the examiner, who was assigned to Art Unit 2615, will be assigned to new Art Unit 2616. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

Specification

2. The interlineations or cancellations made in the specification or amendments to the claims could lead to confusion and mistake during the issue and printing processes. Accordingly, the portion of the specification or claims as identified below is required to be rewritten before passing the case to issue. See 37 CFR 1.125 and MPEP § 608.01(q).

The examiner notes that the amendment to the specification dated 13 January 2004 directs the replacement of several paragraphs in the specification with paragraphs that contain changes to the original paragraphs. However, several of those paragraphs recite text that was amended by the amendment in its original form. Specifically, the paragraph beginning on line 11 of page 25 has been twice amended. The first amendment changed the first line to read in part "2s6." The second amendment recites the same text as "2s5," which is what the first amendment changed from. Similar instances happen in the paragraph beginning on line 17 of page 29, the paragraph beginning on line 20 of page 31, the paragraph beginning on line 15 of page 34, and the paragraph beginning on line 6 of page 35.

Appropriate correction is required.

Claim Objections

3. Claim 7 is objected to because of the following informalities: The claim, as amended, recites: "said header analyzer is operable to activated when the start code is identified." The examiner believes the text should read --said header analyzer is operable to activate when the start code is identified.-- Appropriate correction is required.

Response to Arguments

4. Applicant's arguments filed with respect to claims 1-4, 6-7, 10, 12-14 and 16-17 have been fully considered but they are not persuasive.

In re page 8, applicant's representative states: "Fujinami suffers from the same problems as discussed in the conventional art discussed in the background of the present invention. The method and system as discussed in Fujinami does not have the benefit of reduced hardware of the coded signal reproduction apparatus, in accordance with the present invention, as a direct result of the distinction between the claimed invention and the method and system of Fujinami as discussed below."

The examiner respectfully disagrees. As claimed, the application does not overcome the cited art. Clearly, a device that outputs predetermined data in accordance with the matching status information would be selective of the data being output, and clearly a video output or other predetermined data output would not output overhead data such as a packet start code, and would therefore judge whether the data were a packet start code or some other code to be output.

In re page 9, applicant's representative states: "The control circuit 24 of Fujinami instructs the switch 23 to output information based entry point data. Therefore, clearly switch 23 is not activated when the code is judged not be a part of the packet start code. Accordingly, Fujinami fails to teach outputting data when a code is judged not to be a part of a packet start code."

The examiner respectfully disagrees. Fujinami does not output entry point data. To the contrary, switch 23 is used to transmit audio data to the audio decoder and video data to the video decoder when the applied stream contains data so identified by the data headers. See Col 15, lines 29-37.

5. Applicant's arguments with respect to claims 5, 8-9 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujinami et al (5,568,274).

Regarding claim 1, Fujinami et al disclose a coded signal reproduction apparatus comprising:

- matching status information outputter operable to detect the matching status of a code (Col 3, lines 17-22 "The control circuit 21 in the separation circuit 21

successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22”) which is input for every predetermined bit with a prefix code of a packet start codes (Col 2, lines 1-2 “Each packet includes a header which includes a Packet_Start_Code_Prefix”), and outputting matching status information of a head part of the packet start code (Col 3, lines 17-22 “The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22”); and

- a data formatter operable to output predetermined data in accordance with the matching status information (Col 3, lines 17-22 “The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22”) when the code is judged not to be a part of the packet start code (Col 3, lines 9-12 “the header separation circuit 22 in the separation circuit 21 separates pack headers and packet headers from the multiplexed signal read out from the DSM 10” and Col 15, lines 29-33 “The control circuit 24 of the separation circuit 21 causes the switching circuit 23 to connect the input terminal G successively to the output terminals H1 and H2 in accordance with

the stream_ID of the packet header received from the header separation circuit 22").

Regarding claims 2 and 3, Fujinami et al disclose a coded signal reproduction apparatus wherein the matching status information outputter includes:

- a head code detection unit operable to detect the matching status of the head part of the packet start code at every predetermined bit from the input code sequence, and to output matching information at the present point of time (Col 3, lines 7-9 "The multiplexed signal...is reproduced and decoded by the reproducing apparatus" and lines 12-15 "The header separation circuit 22 supplies the headers to the control circuit 24, and supplies the multiplexed signal to the input terminal G of the switching circuit 23"); and
- a matching status historical information hold unit for operable to receive the matching information at the present point of time, and to hold historical information of the matching status of the head code (Col 15, lines 22-24 "The control circuit 24 supplies each entry point it receives from the header separation circuit 22 to the entry point storage device 41, where it is stored"); and
- start code discriminator operable to discriminate the packet start code by using the historical information (Col 15, lines 24-28 "Since the current read position is supplied from the drive apparatus 10 to the control circuit 24, the control circuit 24 can store the position and the contents of each entry point in a corresponding relationship to each other") and a packet start code identifier

existing in the later half part of the packet start code (Fig 3 shows a packet header ID following a packet start code prefix).

Regarding claims 10 and 12-13, Fujinami et al disclose a coded signal reproduction apparatus wherein the input code sequence is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

3. Claims 8, 9 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yanagihara et al (6,172,989).

Regarding claim 8, Yanagihara et al disclose a coded signal reproduction apparatus comprising:

- an end code sequence detector operable to detect, from code sequences of coded data, a code sequence indicating the end of the coded data (Col 1, lines 66-67 "The packet header is formed of 'Data_Length' at representing the data length"); and
- formatter operable to add a predetermined number of pseudo data to the rear of the code sequence indicating the end of the coded data (Col 7, lines 1-5 "the packeting circuit 45 sets the supplied time information as a 4-byte time stamp and adds 124 byte padding data to the time stamp and the 2,048 byte pack in order that the total byte length be a multiple of 16, as shown in FIG.4" so that the data bus width of pipeline transfer including the end of the coded data becomes equal to the bus width of pipeline transfer including other data

(Col 8, lines 19-20 "if the playback rate is changed, FN and DB are changed in accordance"), when a code sequence indicating the end of the code data is detected by the end code sequence detector (Col 13, line 66 - Col 14, line 3 "The process then advances to step S3 to add 28-byte padding data to the hindmost end of each source packet in order to form data blocks of the quadlet unit size").

Regarding claim 9, Yanagihara et al disclose a coded signal reproduction apparatus comprising:

- a specific code sequence inserter operable to insert a specific code sequence in the last packet in a packet sequence before decoding;
- wherein the formatter is operable to add a predetermined number of pseudo data to the rear of the specific code sequence (Col 9, line 66- Col 10, line 1 "The packeting circuit 45...first adds padding data to a pack of 2,048 bytes, as shown in FIG. 10" FIG 10 clearly shows the padding data added to the end of the sequence.).

Regarding claim 18, Yanagihara et al disclose a coded signal reproduction apparatus wherein the input code sequence is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Col 5, lines 9-13 "The demultiplexer 13 is arranged to sort, out of supplied MPEG-PS data, a video pack having video information, an audio pack having audio information, and a sub picture pack having information such as captions, and to output the packs to a decoding section").

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 6-7, 14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujinami et al as applied to claims above, and further in view of Boden (5.633,686).

Regarding claim 4, Fujinami et al disclose a coded signal reproduction apparatus wherein the matching status information outputter includes:

- a head code detection unit operable to detect the matching status of the head part of the packet start code at every predetermined bit from the input code sequence, and to output matching information at the present point of time (Col 3, lines 7-9 "The multiplexed signal...is reproduced and decoded by the reproducing apparatus" and lines 12-15 "The header separation circuit 22 supplies the headers to the control circuit 24, and supplies the multiplexed signal to the input terminal G of the switching circuit 23"); and
- a matching status historical information hold unit operable to receive the matching information at the present point of time, and to hold historical information of the matching status of the head code (Col 3, lines 17-22 "The control circuit 24 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in

accordance with the stream_ID of the packet header received from the header separation circuit 22.” In order for a full packet to be steered to the appropriate decoder, the header information must be stored in the control of the switching circuit.)

Fujinami et al do not specifically disclose a start code discrimination unit operable to discriminate a hierarchy start code of video data in accordance with the historical information and a video hierarchy identifier of coded video data which exists in a position corresponding to the latter half of the packet start code.

Boden teaches a start code discrimination unit operable to discriminate a hierarchy start code of video data in accordance with the historical information (Col 7, lines 10-23 “the controller starts writing the video information to the memory array...until the maximum programmed address is reached...The write bank controller selects the next bank of memory into which data is to be written”) and a video hierarchy identifier of coded video data which exists in a position corresponding to the latter half of the packet start code (Col 8, lines 12-13 “the decoder awaits reception of the thirty-two bit start code” and Col 8, lines 18 -19 “Following the start code, the next two bytes received are the system data and system control bytes”).

As taught by Boden, basing a code hierarchy on historical information is a useful and easily used technique of gathering the data required for generating the hierarch, and placing such additional data towards the end of the data area used for such information does not require the rearrangement of existing data.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to base hierarchy data on historical information, and to place that data in the second half of the area in which it logically belongs.

Regarding claim 6, Fujinami et al disclose a coded signal apparatus wherein the header analyzer includes a header analysis unit operable to analyze the header of the packet and to output the reproduction information (Fig 17, item 67, "Control Circuit"), and a reproduction information hold unit operable to hold the reproduction information (Fig 17, item 93 "Entry Point Storage Device" and item 68 "TOC Storage Device").

Regarding claim 7, Fujinami et al disclose a coded signal reproduction apparatus wherein the header analyzer is operable to activate when the start code is identified (Col 12, lines 20-21 "The pack begins with a Pack_Header consisting of a Pack_Start_Code" and Col 3, lines 17-22 "The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22").

Regarding claims 14, 16, and 17, Fujinami et al disclose a coded signal reproduction apparatus wherein the input code sequence is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

6. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujinami et al as applied to claims above, and further in view of Toyohara (5,768,265).

Regarding claim 5, Fujinami et al disclose a coded signal reproduction apparatus comprising:

- header analyzer operable to analyze the header of the packet to output reproduction information when the input code sequence is coded video data (Col 3, lines 12-15 “The header separation circuit 22 supplies the headers to the control circuit 24, and supplies the multiplexed signal to the input terminal G of the switching circuit 23”).

Fujinami et al are silent on the topic of effectiveness of the data.

Toyohara teaches a data format means that inserts the reproduction information together with information indicating effectiveness of the reproduction information, in a predetermined position in the decoded video data (Col 8, lines 39-41 “the identifier discriminating circuit 410 analyses the identifier attached to the respective data to identify the effectiveness of the data”).

As taught by Toyohara, effectiveness data lessens the burden on the processor by identifying packets that need not be decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to provide effectiveness data to the decoder.

Regarding claim 15, Fujinami et al disclose a coded signal reproduction apparatus wherein the input code sequence is a coded and multiplexed signal in which

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audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached at (703) 305-4380.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF
January 5, 2005


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600